

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of:

Proposed Changes in the Commission's Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields	ET Docket No. 03-137
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**Reply Comments of Site Safe
Submitted November 18, 2013**

Site Safe, Inc., (“Sitesafe”) hereby submits these Reply Comments in response to the publication FCC 13-39, First Report and Order, Further Notice of Proposed Rule Making (FNPRM) and Notice of Inquiry (ET Docket No. 13-84 and ET Docket No. 03-137) released March 29, 2013 by the FCC.

Sitesafe, an engineering firm, has been in the radio frequency (RF) safety compliance business since the 1990’s. We provide engineering services to wireless carriers, municipalities, and anyone interested in RF safety analysis. Sitesafe participates in the IEEE’s International Committee on Electromagnetic Safety (ICES) and the maintenance team (MT-3) responsible for maintaining the standard: IEC 62232, *Determination of RF field strength and SAR in the vicinity of radiocommunication base stations*.

Exemptions from Evaluation / Categorical Exclusion

A repeated concern in comments from many parties regarded Categorical Exclusion / Exemption from Evaluation and particularly the MPE-based exemption. CDE¹, and H&E² generally supported the proposed language while Motorola³ noted the criteria “tables would be new and unique evaluation exemptions not based on international standards and specifications.” Blooston⁴ and UTC⁵ indicated that the proposed rules would affect land mobile operators who have not been required to perform evaluations because of service-specific exclusion. The proposed MPE-based exemption criteria have been questioned in our comments as well as those by Verizon⁶ and PCIA⁷.

¹ Comments on behalf of Cohen, Dippell and Everist, P.C., September 3, 2013

² Reply Comments of Hammett & Edison, Inc., Consulting Engineers, November 1, 2013

³ Comments of Motorola Solutions, Inc., September 3, 2013

⁴ Comments on behalf of the Blooston Private Users, September 3, 2013

⁵ Reply Comments of the Utilities Telecom Council, November 4, 2013

⁶ Comments of Verizon and Verizon Wireless, September 3, 2013

⁷ Comments of PCIA – The Wireless Infrastructure Association and The HETNET Forum, September 3, 2013

MPE-Based Exemption

The MPE-based exemption criteria presented in Table 1⁸ of the FNPRM are derived from MPE limits and detailed in Appendix C. The reason these are much more restrictive is that the current categorical exclusion limits consider not only effective radiated power but also how the antennas direct that power. In OET Bulletin 65⁹ the categorical exemption derivations are described as such:

These conditions are generally based on one or more of the following variables: (1) operating power, (2) location, (3) height above ground of the antenna and characteristics of the antenna or mode of transmission.

The *characteristics of the antenna* is a key part of the derivation and was lost in the proposed criteria.

The proposed criteria are actually somewhat of an evaluation themselves, although a relatively easy one to implement. Allowing a further level of detail to the criteria would allow sites that are currently exempt from further assessment to remain so. The complication is this would require evaluating a range of angles from the antenna, and their respective ERPs and distances to accessible areas.

We acknowledge that this moves away from the notion of a simple method for determining exemption so we propose another approach.

If a single or multiple fixed transmitter site is evaluated and determined to be in compliance with General Population exposure limits, without using administrative controls, then that site would not require subsequent (i.e. routine) evaluation, unless the operating characteristics or the site configuration is changed.

Administrative controls would be defined as in IEEE C95.7-2005¹⁰:

3.1.2 administrative controls: Procedures and information provided to personnel for the purpose of reducing exposure to potential RF hazards and that generally depend on the awareness and participation of personnel for their effectiveness. Examples include warning signs and visual/audible alarms, indicative barriers (e.g., rails and chains), standard operating procedures (safe work practices), personal protective equipment (PPE), time limits on the duration of exposure (time averaging), and RF safety training.

If no administrative controls are necessary to achieve compliance it is reasoned that the site should be exempt from further evaluations.

⁸ FCC 13-39, page 44

⁹ Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields, OET Bulletin 65 Edition 97-01, August 1997

¹⁰ IEEE Recommended Practice for Radio Frequency Safety Programs, 3 kHz to 300 GHz," IEEE Std C95.7-2005 , vol., no., pp.0_1,43, 2006 doi: 10.1109/IEEESTD.2006.99378

The assessment to show exemption from future or routine evaluation would have to comprise of a theoretical assessment based on worst-case transmitter powers to all the antennas on the site or field measurements with all of the transmitters operating at maximum power.

Service-Specific Exclusion

Sitesafe continues to support the elimination of service-specific exemption and replacing them with a system such as described above. It is likely the intent of the Commission to have evaluations performed on some sites that are currently categorically excluded but may not actually be in compliance. Some such sites have not had assessments performed for areas where people can get relatively close to antennas. One key example is low mounted omni-directional antennas, especially on rooftop installations.

Conclusions

The improvement and clarification of the regulations regarding RF exposure at fixed transmitter sites will ensure safety for workers and the general public as well as provide a clear path for the wireless industry to ensure compliance. Sitesafe is committed to supporting the Commission in this ongoing work.

Respectfully Submitted,

By _____

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